

Amendments to the Claims

Please amend the claims as indicated in the following listing of the claims, which replaces all prior versions thereof.

1. (Currently Amended) ~~An A computer-implemented method for facilitating an aggregate transaction, the method comprising:~~

determining, by a computer system, a price for issuing, by an issuer, a convertible debt component structured issued by an issuer to at least one investor, wherein the convertible debt component [[; entering into, by the issuer, a convertible debt hedge with a counter-party, wherein the convertible debt hedge]] is integrated with said a convertible debt component hedge entered into by the issuer with a counter-party to form an integrated aggregate transaction, wherein at least one terms of an anti-dilution provision, a consequence of merger provision, and a concentrative event provision of said convertible debt hedge match matches at least one corresponding terms of an anti-dilution provision of said convertible debt component; and
determining, by the computer system, a table of strike prices for a derivative contract included in said convertible debt hedge including a derivative contract having a strike price structured to be adjusted up to a maturity date of said derivative contract, wherein the table includes strike prices at a plurality of different times from issuance of the convertible debt component to maturity of the derivative contract, and wherein the computer system comprises a processor and a memory.

2. (Previously Presented) The aggregate transaction method of Claim 1, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

3. (Previously Presented) The aggregate transaction method of Claim 1, further comprising said derivative contract having at least one call option structured to be exercisable upon conversion of at least a portion of said convertible debt component by said investor.

4. (Previously Presented) The aggregate transaction method of Claim 3, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

5. (Previously Presented) The aggregate transaction method of Claim 1, further comprising said derivative contract having at least one call option structured to be exercised automatically upon conversion of at least a portion of said convertible debt component by said investor.

6. (Previously Presented) The aggregate transaction method of Claim 5, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

7. (Previously Presented) The aggregate transaction method of Claim 1, further comprising said derivative contract being structured to be voidable at the option of at least one of said issuer and a counter-party to said derivative contract if said investor exercises a change of control put on said convertible debt component.

8. (Previously Presented) The aggregate transaction method of Claim 7, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

9. (Previously Presented) The aggregate transaction method of Claim 1, further comprising said derivative contract being structured to be terminated automatically if said investor exercises a change of control put on said convertible debt component.

10. (Previously Presented) The aggregate transaction method of Claim 9, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

11. (Previously Presented) The aggregate transaction method of Claim 1, wherein said convertible debt hedge is structured to become voidable at the option of at least one of said issuer and a counter-party to said derivative contract upon an event of default on said convertible debt component by said issuer.

12. (Previously Presented) The aggregate transaction method of Claim 11, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

13. (Previously Presented) The aggregate transaction method of Claim 1, wherein said convertible debt hedge is structured to terminate automatically upon an event of default on said convertible debt component by said issuer.

14. (Previously Presented) The aggregate transaction method of Claim 13, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

15. (Previously Presented) The aggregate transaction method of Claim 1, wherein said strike price is structured to increase at periodic times until maturity of said derivative contract.

16. (Previously Presented) The aggregate transaction method of Claim 15, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

17. (Previously Presented) The aggregate transaction method of Claim 1, wherein at least a maturity date of said derivative contract matches at least a put date of said convertible debt component.

18. (Previously Presented) The aggregate transaction method of Claim 17, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

19. (Previously Presented) The aggregate transaction method of Claim 1, wherein at least a maturity date of said derivative contract matches at least a maturity date of said convertible debt component.

20. (Previously Presented) The aggregate transaction method of Claim 19, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

21. (Previously Presented) The aggregate transaction method of Claim 1, wherein at least one underlying security feature of said derivative contract matches at least one underlying security feature of said convertible debt component.

22. (Previously Presented) The aggregate transaction method of Claim 21, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

23. (Previously Presented) The aggregate transaction method of Claim 1, wherein said derivative contract includes at least one call option.

24. (Previously Presented) The aggregate transaction method of Claim 23, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

25. (Previously Presented) The aggregate transaction method of Claim 1, further comprising at least one warrant associated with said integrated aggregate transaction.

26. (Previously Presented) The aggregate transaction method of Claim 25, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

27. (Previously Presented) The aggregate transaction method of Claim 25, further comprising said warrant being structured to create a call spread between said derivative contract and said warrant.

28. (Previously Presented) The aggregate transaction method of Claim 27, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

29. (Previously Presented) The method of claim 1 wherein
at least a portion of said convertible debt hedge being structured to be exercised automatically upon conversion of at least a portion of said convertible debt component by said investor.

30. (Previously Presented) The aggregate transaction method of Claim 29, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

31. (Previously Presented) The aggregate transaction method of Claim 29, wherein said convertible debt hedge includes a derivative contract having at least one call option, at least a portion of said derivative contract being structured to terminate if exercise of said call option occurs at a time when the value of a security purchased pursuant to said call option is less than a current strike price of said derivative contract.

32. (Previously Presented) The aggregate transaction method of Claim 31, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

33. (Previously Presented) The aggregate transaction method of Claim 29, wherein said convertible debt hedge includes a derivative contract structured for said issuer, upon conversion of said convertible debt component, to purchase a type and amount of an underlying security of said derivative contract matching a type and amount of an underlying security of said convertible debt component.

34. (Previously Presented) The aggregate transaction method of Claim 33, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

35. (Previously Presented) The aggregate transaction method of Claim 29, further comprising said convertible debt hedge including a derivative contract structured to be voidable at the option of at least one of said issuer and a counter-party to said derivative contract if said investor exercises a change of control put on said convertible debt component.

36. (Previously Presented) The aggregate transaction method of Claim 35, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

37. (Previously Presented) The aggregate transaction method of Claim 29, further comprising said convertible debt hedge including a derivative contract structured to terminate automatically if said investor exercises a change of control put on said convertible debt component.

38. (Previously Presented) The aggregate transaction method of Claim 37, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying

security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

39. (Previously Presented) The aggregate transaction method of Claim 29, further comprising said convertible debt hedge including a derivative contract, wherein said convertible debt hedge is structured to become voidable at the option of at least one of said issuer and a counter-party to said derivative contract upon an event of default on said convertible debt component by said issuer.

40. (Previously Presented) The aggregate transaction method of Claim 39, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

41. (Previously Presented) The aggregate transaction method of Claim 29, further comprising said convertible debt hedge including a derivative contract, wherein said convertible debt hedge is structured to terminate automatically upon an event of default on said convertible debt component by said issuer.

42. (Previously Presented) The aggregate transaction method of Claim 41, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

43. (Previously Presented) The aggregate transaction method of Claim 29, wherein at least a maturity date of a derivative contract of said convertible debt hedge matches at least a put date of said convertible debt component.

44. (Previously Presented) The aggregate transaction method of Claim 43, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

45. (Previously Presented) The aggregate transaction method of Claim 29, wherein at least a maturity date of a derivative contract of said convertible debt hedge matches at least a maturity date of said convertible debt component.

46. (Previously Presented) The aggregate transaction method of Claim 45, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

47. (Previously Presented) The aggregate transaction method of Claim 29, wherein at least one underlying security feature of a derivative contract of said convertible debt hedge matches at least one underlying security feature of said convertible debt component.

48. (Previously Presented) The aggregate transaction method of Claim 47, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

49. (Previously Presented) The aggregate transaction method of Claim 29, further comprising at least one warrant associated with said integrated aggregate transaction.

50. (Previously Presented) The aggregate transaction method of Claim 49, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt

hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

51. (Previously Presented) The aggregate transaction method of Claim 49, further comprising said warrant being structured to create a call spread between a derivative contract of said convertible debt hedge and said warrant.

52. (Previously Presented) The aggregate transaction method of Claim 51, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

53. (Previously Presented) The method of claim 1, wherein
said convertible debt hedge includes a derivative contract structured to be voidable at the option of at least one of said issuer and a counter-party to said derivative contract if said investor exercises a change of control put on said convertible debt component.

54. (Previously Presented) The aggregate transaction method of Claim 53, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

55. (Previously Presented) The aggregate transaction method of Claim 53, wherein said convertible debt hedge is structured to become voidable upon an event of default of said convertible debt component by said issuer.

56. (Previously Presented) The aggregate transaction method of Claim 55, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt

hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

57. (Previously Presented) The aggregate transaction method of Claim 53, wherein said convertible debt hedge is structured to terminate automatically upon an event of default of said convertible debt component by said issuer.

58. (Previously Presented) The aggregate transaction method of Claim 57, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

59. (Previously Presented) The aggregate transaction method of Claim 53, wherein at least a maturity date of said derivative contract matches at least a put date of said convertible debt component.

60. (Previously Presented) The aggregate transaction method of Claim 59, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

61. (Previously Presented) The aggregate transaction method of Claim 53, wherein at least a maturity date of said derivative contract matches at least a maturity date of said convertible debt component.

62. (Previously Presented) The aggregate transaction method of Claim 61, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying

security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

63. (Previously Presented) The aggregate transaction method of Claim 53, wherein at least one underlying security feature of said derivative contract matches at least one underlying security feature of said convertible debt component.

64. (Previously Presented) The aggregate transaction method of Claim 63, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

65. (Previously Presented) The aggregate transaction method of Claim 53, further comprising at least one warrant associated with said integrated aggregate transaction.

66. (Previously Presented) The aggregate transaction method of Claim 65, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

67. (Previously Presented) The aggregate transaction method of Claim 65, further comprising said warrant being structured to create a call spread between said derivative contract and said warrant.

68. (Previously Presented) The aggregate transaction method of Claim 67, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

69. (Previously Presented) The method of claim 1, wherein
said convertible debt hedge includes a derivative contract structured to be
automatically terminated if said investor exercises a change of control put on said convertible
debt component.

70. (Previously Presented) The aggregate transaction method of Claim 69, further comprising
said convertible debt hedge being structured to permit said issuer to settle said convertible debt
hedge with a payment selected from the group consisting of cash, an amount of an underlying
security, and a combination of cash and an amount of underlying security to allow said
convertible debt hedge to be accounted for as an equity instrument.

71. (Previously Presented) The aggregate transaction method of Claim 69, wherein said
convertible debt hedge is structured to become voidable upon an event of default of said
convertible debt component by said issuer.

72. (Previously Presented) The aggregate transaction method of Claim 71, further comprising
said convertible debt hedge being structured to permit said issuer to settle said convertible debt
hedge with a payment selected from the group consisting of cash, an amount of an underlying
security, and a combination of cash and an amount of underlying security to allow said
convertible debt hedge to be accounted for as an equity instrument.

73. (Previously Presented) The aggregate transaction method of Claim 69, wherein said
convertible debt hedge is structured to terminate automatically upon an event of default of said
convertible debt component by said issuer.

74. (Previously Presented) The aggregate transaction method of Claim 73, further comprising
said convertible debt hedge being structured to permit said issuer to settle said convertible debt
hedge with a payment selected from the group consisting of cash, an amount of an underlying
security, and a combination of cash and an amount of underlying security to allow said
convertible debt hedge to be accounted for as an equity instrument.

75. (Previously Presented) The method of claim 1, wherein
said convertible debt hedge further includes a derivative contract structured to become voidable at the option of at least one of said issuer and said counter-party to said derivative contract upon an event of default of said convertible debt component by said issuer.

76. (Previously Presented) The aggregate transaction method of Claim 75, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

77. (Previously Presented) The aggregate transaction method of Claim 75, wherein at least a maturity date of said derivative contract matches at least a put date of said convertible debt component.

78. (Previously Presented) The aggregate transaction method of Claim 77, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

79. (Previously Presented) The aggregate transaction method of Claim 75, wherein at least a maturity date of said derivative contract matches at least a maturity date of said convertible debt component.

80. (Previously Presented) The aggregate transaction method of Claim 79, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

81. (Previously Presented) The aggregate transaction method of Claim 75, wherein at least one underlying security feature of said derivative contract matches at least one underlying security feature of said convertible debt component.

82. (Previously Presented) The aggregate transaction method of Claim 81, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

83. (Previously Presented) The aggregate transaction method of Claim 75, wherein said derivative contract includes at least one call option.

84. (Previously Presented) The aggregate transaction method of Claim 83, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

85. (Previously Presented) The aggregate transaction method of Claim 75, further comprising at least one warrant associated with said integrated aggregate transaction.

86. (Previously Presented) The aggregate transaction method of Claim 85, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

87. (Previously Presented) The aggregate transaction method of Claim 85, further comprising said warrant being structured to create a call spread between said derivative contract and said warrant.

88. (Previously Presented) The aggregate transaction method of Claim 87, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

89. (Previously Presented) The method of claim 1, wherein
said convertible debt hedge further including a derivative contract structured to be automatically terminated upon an event of default of said convertible debt component by said issuer.

90. (Previously Presented) The aggregate transaction method of Claim 89, further comprising said convertible debt hedge being structured to permit said issuer to settle said convertible debt hedge with a payment selected from the group consisting of cash, an amount of an underlying security, and a combination of cash and an amount of underlying security to allow said convertible debt hedge to be accounted for as an equity instrument.

91-102. (Canceled)

103. (Previously Presented) The method of Claim 1, wherein the issuer is in communication with the counter-party via a computer network.

104. (New) The method of claim 1, wherein terms of a consequence of merger provision of said convertible debt hedge match terms of a consequence of merger provision of said convertible debt component.

105. (New) The method of claim 1, wherein terms of a concentrative event provision of said convertible debt hedge match terms of a concentrative event provision of said convertible debt component.

106. (New) The method of claim 1, wherein terms of a consequence of merger provision of said convertible debt hedge match terms of a consequence of merger provision of said convertible debt component, and terms of a concentrative event provision of said convertible debt hedge match terms of a concentrative event provision of said convertible debt component.

107. (New) A computer-implemented method for facilitating an aggregate transaction, the method comprising:

determining, by a computer system, a price for a convertible debt component issued by an issuer to at least one investor, wherein the convertible debt component is integrated with a convertible debt hedge entered into by the issuer with a counter-party to form an integrated aggregate transaction, wherein terms of a consequence of merger provision of said convertible debt hedge match terms of a consequence of merger provision of said convertible debt component; and,

determining, by the computer system, a table of strike prices for a derivative contract included in said convertible debt hedge, wherein the table includes strike prices at a plurality of different times from issuance of the convertible debt component to maturity of the derivative contract, and wherein the computer system comprises a processor and a memory.

108. (New) A computer-implemented method for facilitating an aggregate transaction, the method comprising:

determining, by a computer system, a price for a convertible debt component issued by an issuer to at least one investor, wherein the convertible debt component is integrated with a convertible debt hedge entered into by the issuer with a counter-party to form an integrated aggregate transaction, wherein terms of a concentrative event provision of said convertible debt hedge match terms of a concentrative event provision of said convertible debt component; and,

determining, by the computer system, a table of strike prices for a derivative contract included in said convertible debt hedge, wherein the table includes strike prices at a plurality of different times from issuance of the convertible debt component to maturity of the derivative contract, and wherein the computer system comprises a processor and a memory.